New Reactor Licensing

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Mission

The NRC's mission is to regulate the Nation's civilian use of byproduct, source, and special nuclear materials to ensure adequate protection of public health and safety, to promote the common defense and security, and to protect the environment.

New Reactor Licensing Activities

- Readiness Assessment
- Part 50 Licensing Process
- Part 52 Licensing Process
  - Early Site Permit
  - Design Certification
  - Combined License
- Regulatory Infrastructure

Future Licensing and Inspection Readiness Assessment

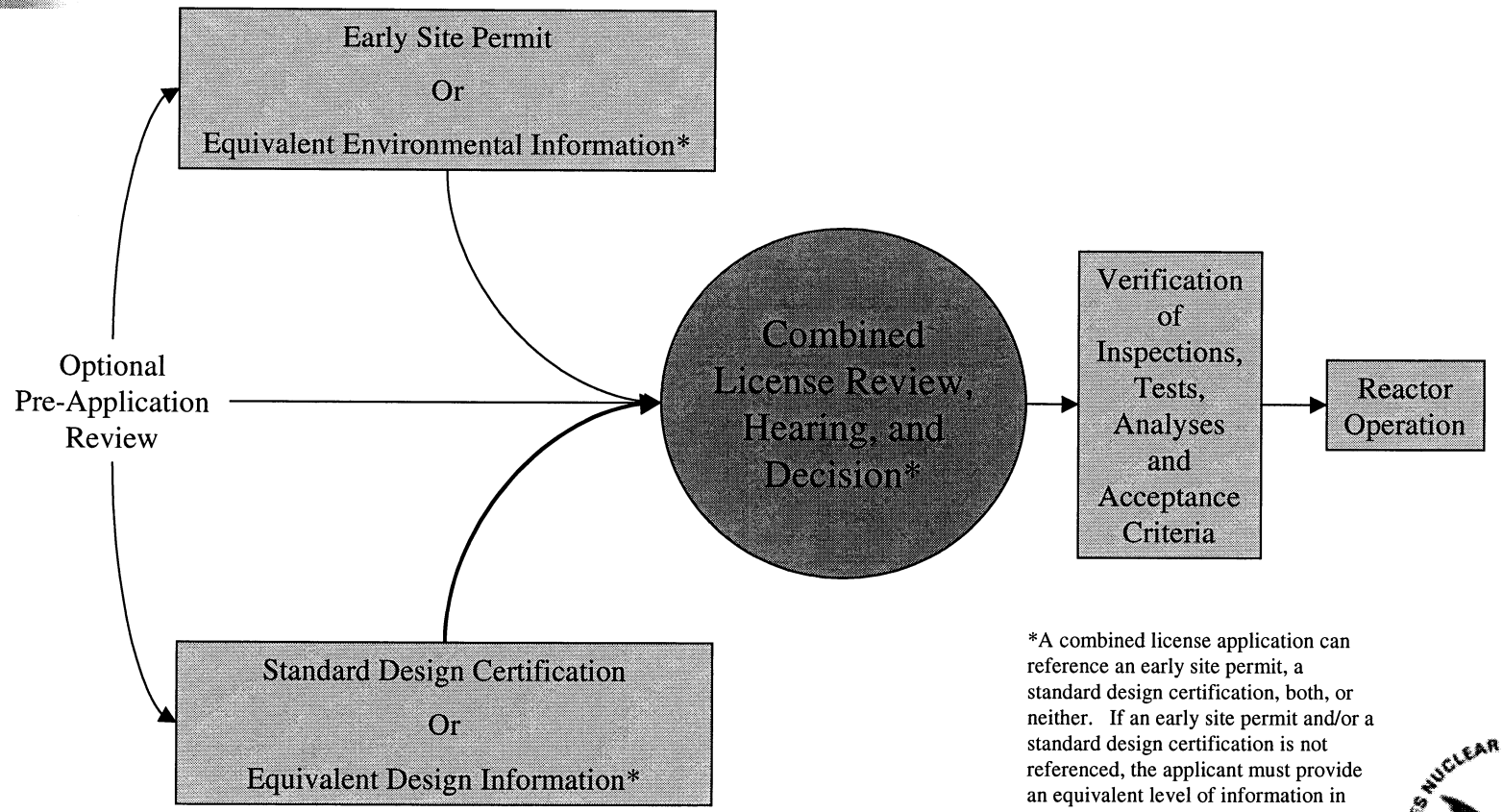
SECY-01-0188 & SECY-02-0076

- Licensing processes in 10 CFR Part 52 are ready to be used
- Can complete current new reactor licensing activities
- Additional work needed to be ready for
  - Early site permits
  - License applications
  - Construction of new plants
- Priorities depend on number/timing of industry decisions to pursue new licensing activities

10 CFR Part 50 Licensing Process

- Construction Permit
  - Preliminary Design
  - Site Characteristics
  - Environmental
- Operating License
  - Final Design
  - Operational Programs
  - Emergency Preparedness

10 CFR Part 52 Licensing Process

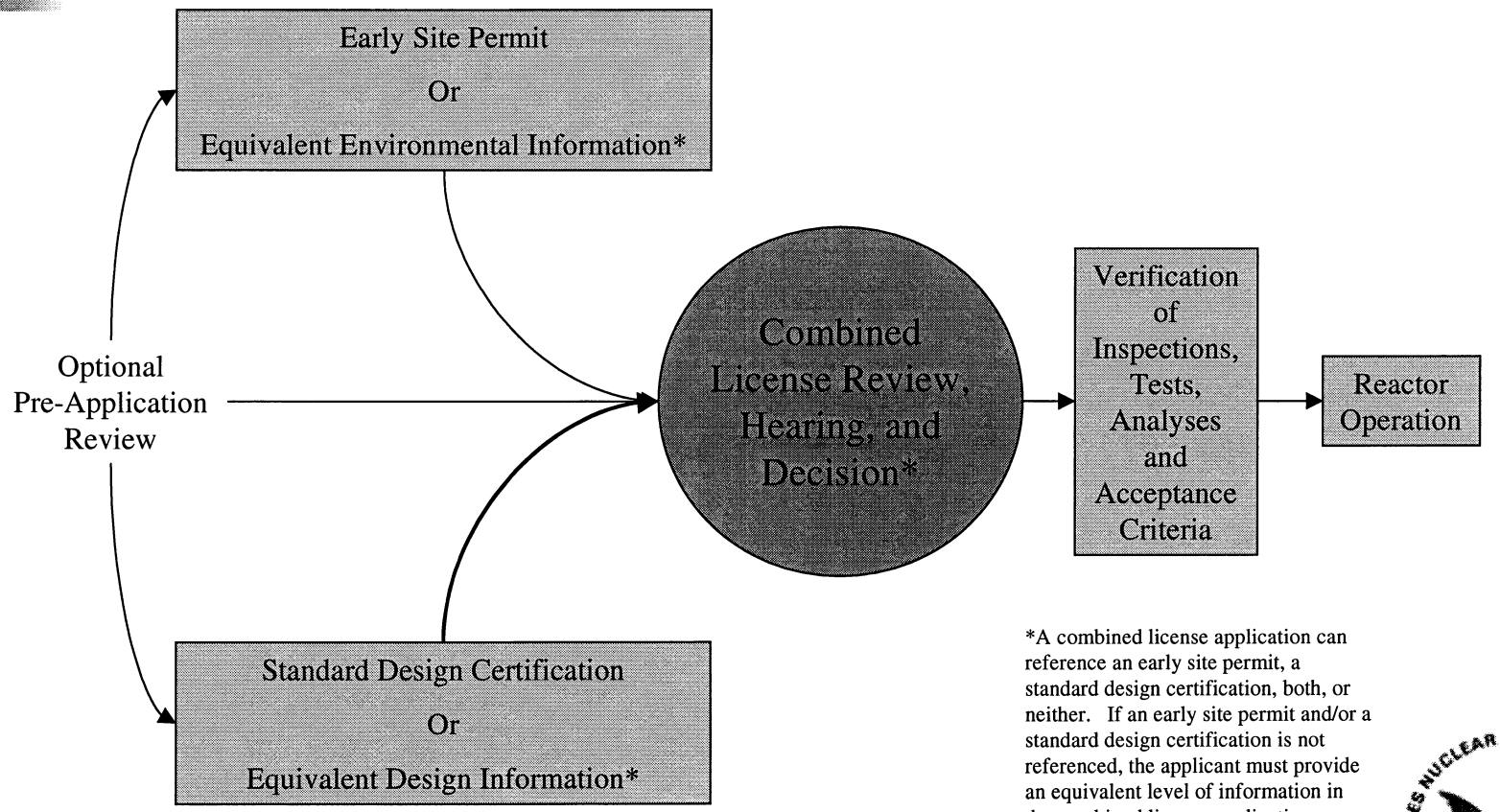


*A combined license application can reference an early site permit, a standard design certification, both, or neither. If an early site permit and/or a standard design certification is not referenced, the applicant must provide an equivalent level of information in the combined license application

Goals for Part 52 Process

- Stable and predictable licensing process
- Resolve safety and environmental issues before authorizing construction
- Reduce financial risks to licensees (COL)
- Enhance safety and reliability through standardization of nuclear plant designs

10 CFR Part 52 Licensing Process



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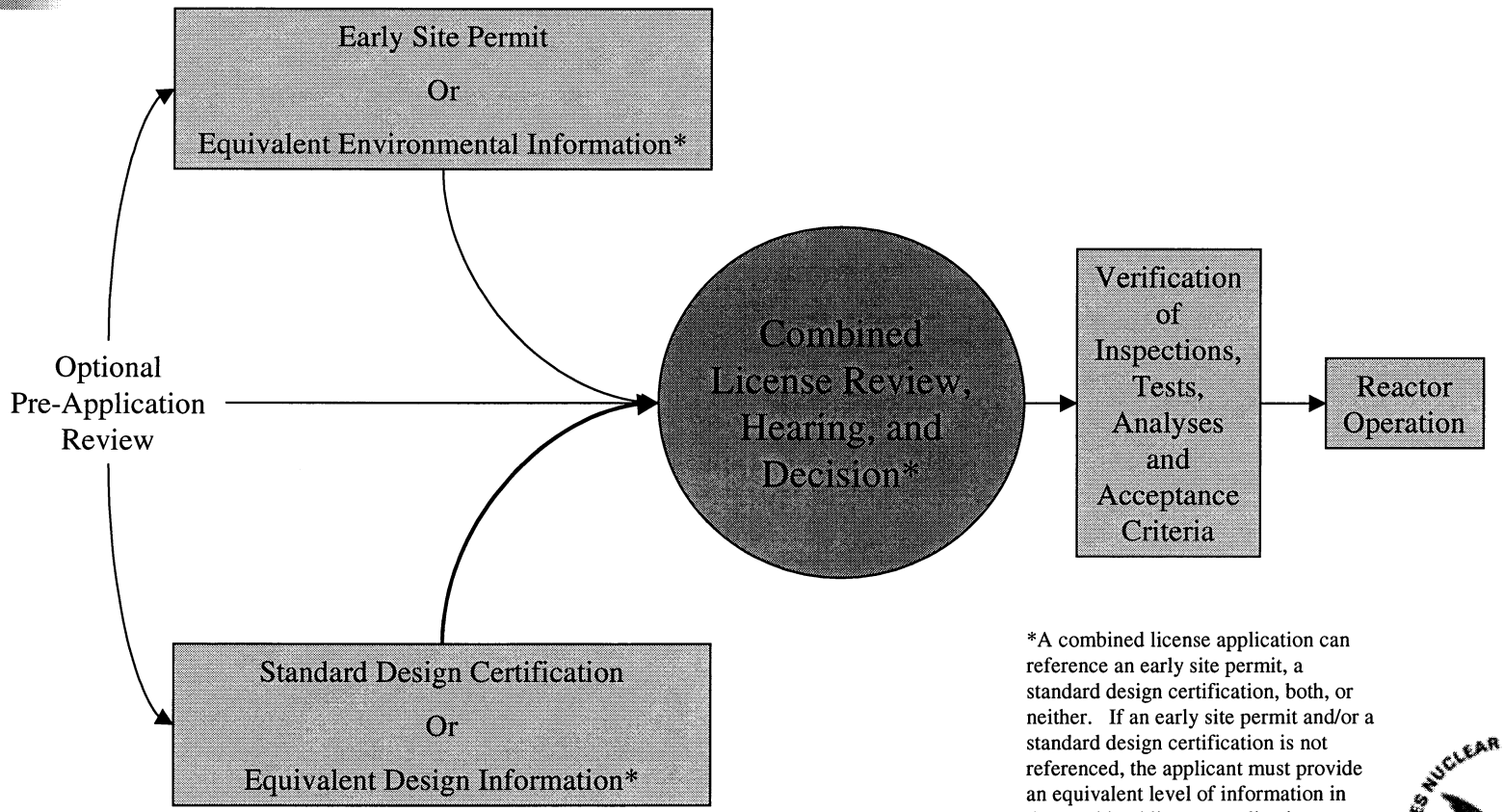
Early Site Permits

- Allows licensee to "bank" site for 10-20 years
- Review Areas
  - Site Safety
  - Environmental Protection
  - Emergency Preparedness

Early Site Permits

- Applications
  - June 2003 – Exelon (Clinton)
  - June 2003 – Entergy (Grand Gulf)
  - Sept 2003 – Dominion (North Anna)
- Current Activities
  - Monthly meetings with NEI and applicants
  - Site visits to observe activities
  - Public meetings in vicinity of site
  - Review Standard

10 CFR Part 52 Licensing Process



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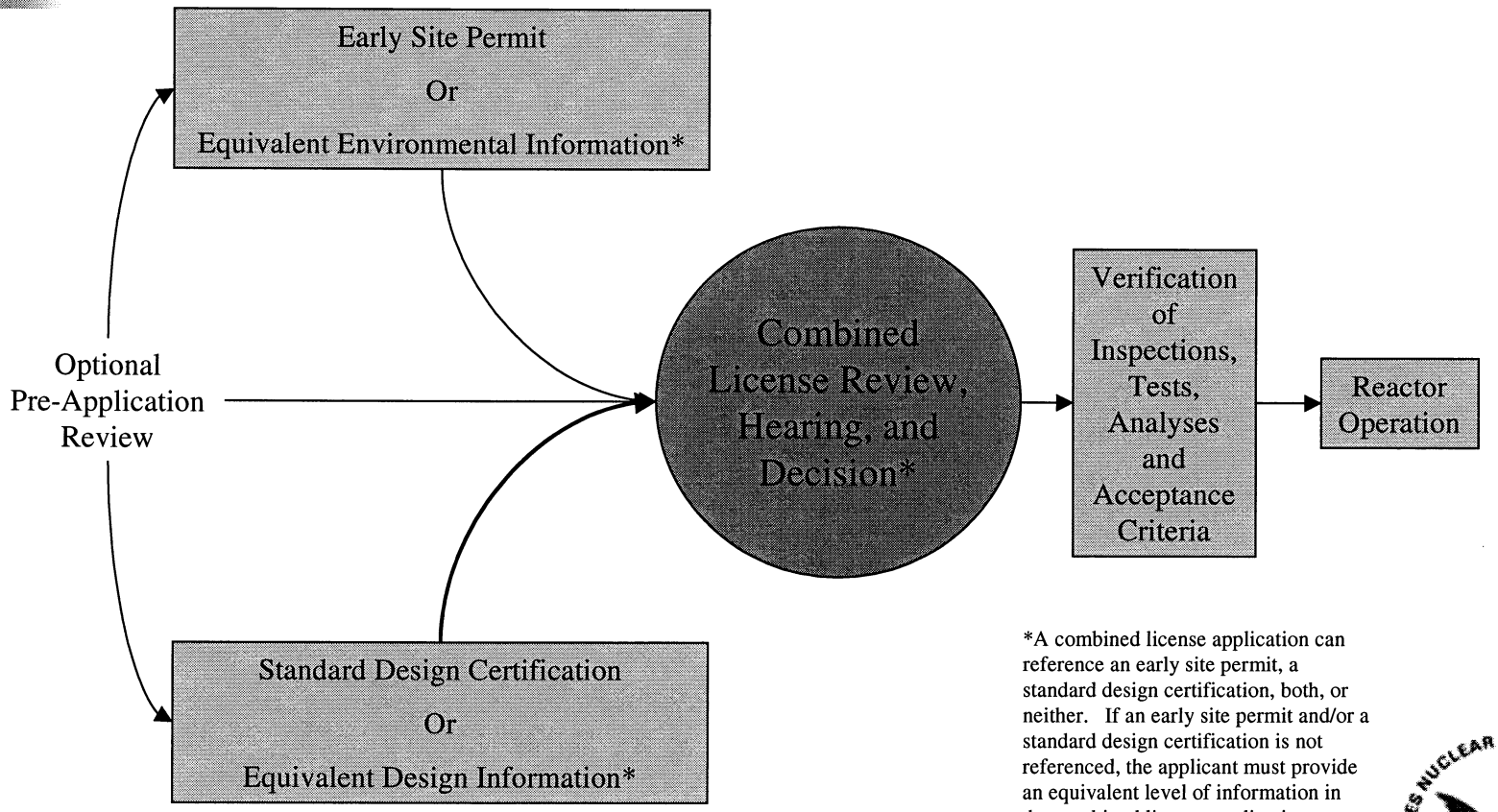
Design Certification

- Allows an applicant to pre-approve a standard nuclear plant design
- 15 year duration
- Reduces licensing uncertainty
- Facilitates standardization

Current Design Reviews

- AP1000 - Westinghouse
- ESBWR - General Electric
- ACR 700 - Atomic Energy of Canada Limited
- GT-MHR - General Atomics
- SWR 1000 - Framatome
- PBMR - PBMR Limited
- IRIS - Westinghouse

10 CFR Part 52 Licensing Process



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Combined License (COL)

- Combined construction permit and conditional operating license for a nuclear power plant
- COL may reference an ESP, a standard design certification, both, or neither

Combined License

- Inspections, Tests, Analyses and Acceptance Criteria (ITAAC)
  - Verify that the facility has been constructed and will be operated in conformity with the license
  - ITAAC met prior to fuel load
  - Programmatic ITAAC – SECY-02-0067

Regulatory Infrastructure

- Rulemaking
  - Part 52 (SECY-02-0077)
- Construction Inspection Program
- Financial/Legal Issues (SECY-01-0207)
- Advanced Reactor Research Plan

Conclusion

- NRC is preparing to license new reactors
- Resources are budgeted, but limited
- Competing with other high-priority reviews.